

REMARKS

The Office Action dated March 24, 2004 has been reviewed and carefully considered. Claims 1-4 are pending in this application, of which the independent claims are 1 and 4. Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

Claims 1-4 stand rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 6,414,991 to Yagasaki et al. ("Yagasaki") in view of U.S. Patent No. 6,057,884 to Chen et al. ("Chen").

Claim 1 recites "(B) coding a plurality of successive video object planes (VOPs) of each of said VOs, said coding step itself comprising sub-steps of (i) coding the texture of said VOPs, . . . , wherein sub-step (B)(i) comprises: . . . wherein the temporal reference of the enhancement layer P-VOPs is selected only as the temporally closest candidate, and the temporal references of the enhancement layer B-VOPs are selected as the two temporally closest candidates, in either case without any consideration of the layer to which the temporally closest candidates belong."

Yagasaki, by contrast, firstly fails to disclose that "the temporal references of the enhancement layer B-VOPs are selected as the two temporally closest candidates." For example, VOP1 is one of the temporal references selected for the enhancement layer B-VOP, "VOP3", in FIG. 14. Although the temporal distance between VOP2 and VOP3 is less than the temporal distance between VOP1 and VOP3, VOP1 is nevertheless selected as the temporal reference. Accordingly, Yagasaki discloses that VOP1 is selected as the temporal reference, even though VOP1 is not one of "the two temporally closest candidates" as explicitly required by the language of claim 1.

Item 1 of the Response to Arguments section of the previous Office Action suggests that the words “immediately before” and “immediately after” mentioned, in connection with the enhancement layer B-VOPs, in various locations in column 15 of Yagasaki between lines 42 and 64 imply that the temporally closest candidates are selected as the temporal references. The applicant traverses this proposition. In each instance, the expression “immediately before” and “immediately after” refers to the layer from which the temporal reference is selected, i.e., the base layer or the enhancement layer, but does not imply or suggest that the selected candidates are “the two temporally closest candidates” as explicitly required by the language of claim 1. In fact, the above-described counterexample depicted in FIG. 14 demonstrates that there is no implication or suggestion that the selected candidates are the temporally closest candidates.

Moreover, since the next-to-be-decoded VOP of the enhancement layer is not, according to the MPEG-4 standard, a candidate (see present specification, page 2, lines 16-22), but nevertheless could be the temporally closest VOP (see claim 1, lines 12-22; FIG. 1), meeting the limitations of claim 1 of the present invention entails modification of the MPEG-4 standard. Yagasaki fails to disclose or suggest modification of the MPEG-4 standard, and therefore, for this reason too, fails to disclose or suggest a methodology by which “the temporal references . . . are selected as the two temporally closest candidates . . . without any consideration of the layer these candidates belong to.”

Since there is no suggestion in Yagasaki of selecting the two temporally closest candidates, the basis for the claim rejection is unclear.

In addition, claim 1 recites “the temporal reference of the enhancement layer P-VOPs is selected only as the temporally closest candidate.” Since, as explained

above, the next-to-be-decoded VOP may be the temporally closest candidate, the MPEG-4 restriction excluding from consideration the next-to-be-decoded VOP would have to be eliminated to practice the inventive method as recited in claim 1. Yagasaki makes no disclosure or suggestion of such a modification to MPEG-4 and, for this reason, too, fails to disclose or suggest the invention as recited in claim 1.

As the second paragraph of item 1 of the Response to Arguments section of the current Office Action acknowledges, the secondary reference, Chen, likewise fails to disclose or suggest the feature of selecting the temporally closest candidates “without any consideration of the layer these candidates belong to.” Accordingly, for at least reasons set forth above, it is unclear to the applicant what proper basis exists for asserting that it would have been obvious to select the temporally closest candidates.

Item 1, second sentence, of the current Office Action, in the “Response to Arguments” section, continues to maintain that “the words immediately before and immediately after in column 15 lines 58-65 clearly refer to the VOP not the layer.”

That passage reads:

Furthermore, in the case where the B-picture in the enhancement layer is encoded by employing as a reference image for forward prediction a VOP which belongs to a layer different from a picture displayed immediately before the B-picture and also by employing as a reference image for backward prediction a VOP which belongs to a layer different from a picture to be displayed immediately after the B-picture, the flag `ref_select_code` is set to 11.

In other words, the “picture displayed immediately before the B-picture” belongs to either the enhancement layer or to the base layer. Whatever that particular layer, it is different from the layer of the VOP being “employed as a reference image.” Accordingly, the passage specifies, with respect to the B-picture, the layer of the VOP

being “employed as a reference image” for that B-picture. The passage does not specify which VOP in that layer, nor any temporal relationship between the VOP and B-picture for which the VOP is being “employed as a reference image.” Therefore, the temporally closest candidate is not being determined in Yagasaki. The same analysis applies, to the above paragraph, with respect to the expression “immediately after.”

Item 1 of the current Office Action next recites, as a further mischaracterization, “Yagasaki also clearly teaches that it is possible within the scope of his invention, to freely set which layer and which VOP are employed as a reference.”

The referred to passage in Yagasaki, col. 15, line 67 – col. 16, line 2, actually says, “Therefore, it is possible within the above-mentioned range to set freely which layer and which VOP in the layer are employed as a reference image.” The reference to the “above-mentioned range” includes all the limitations as to layer specified in Yagasaki col. 15, lines 11-65. For the embodiments described in the latter Yagasaki passage, the choice of reference always depends on the selected layer. Accordingly, Yagasaki not only fails to select the temporally closest candidates, but further fails to select the temporally closest candidates “without any consideration of the layer these candidates belong to” as explicitly required by the language of claim 1.

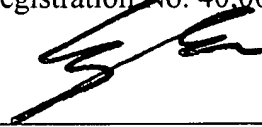
As to apparatus claim 4, it is based on method claim 1, and likewise is deemed to be non-obvious over the prior art of record for at least the same reasons.

The other rejected claims depend from claim 1 and are deemed to distinguish patentably over the cited prior art for at least the same reasons.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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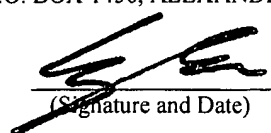
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(Signature and Date)